

REMARKS

Claims 9-11, 13, 16, 19 and 24-26 are pending. Claims 9-11, 13, 19 and 24 stand allowed. By this Amendment, claims 18 and 22 are cancelled.

A. The Office Action rejects claim 16 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2002/0071638 of Musk in view of U.S. Patent Publication No. 2004/0052468 of Pham et al. (hereinafter, Pham). This rejection is respectfully traversed for at least the reasons discussed below.

(1) Solder Deactivates As An Adhesive When Heated

The Office Action fails to establish a *prima facie* case for the obviousness of claim 16 at least because Musk in view of Pham does not disclose, teach or suggest an optical module that includes means for holding that “comprises an adhesive and a micro heater capable of activating the adhesive” as specified in claim 16.

Musk does not disclose a micro heater at all. Pham does not disclose “a micro heater capable of activating the adhesive” as specified in claim 16.

The Office Action asserts that solder is an adhesive. This assertion is respectfully traversed as discussed below.

Even if, *arguendo*, solder were to be regarded as an adhesive, operating a micro heater to melt solder would deactivate, not activate, the solder as an adhesive. On page 4, the Office Action asserts “Pham teaches that heater 112 that heats a solder pool until molten (i.e., activated).” Melting solder cannot be regarded as activating the solder as an adhesive. At best, melting solder deactivates it as an adhesive. It cannot be said that the heater of Pham is “a micro heater capable of activating the adhesive” as specified in claim 16. For at least this reason, withdrawal of the rejection of claim 16 is earnestly solicited.

(2) Claim 16 Specifies A Micro Heater As Part Of An Optical Module

The Office Action fails to establish a *prima facie* case for the obviousness of claim 16 at least because Musk in view of Pham does not disclose, teach or suggest “an optical module” that includes “means for holding” that “comprises an adhesive and a micro heater capable of activating the adhesive” as specified in claim 16.

Musk does not disclose a micro heater at all. Pham does not disclose any type of heater that is a part of the optical module.

The optical module of Pham is depicted only in FIGS. 1-3, 5-9 and in FIG. 11 as die package 111, none of which depicts any heater. In Pham, the process of alignment is depicted in FIG. 10, and a system for implementing the method of alignment is depicted in FIG. 11. See paragraphs 20 and 21 of Pham. It is only FIG. 11 that depicts heater 112, and it is only paragraph 37 that even discusses the heater. Heater 112 of FIG. 11 is not part of die package 111, but instead is part of system 110 for implementing the alignment method discussed with respect to FIG. 10.

On page 2, the Office Action asserts that arguing that the heater must be part of the module is not persuasive. The Office Action asserts that “[t]he claims do not preclude the micro heater from being part of a separate system.” This assertion is respectfully traversed.

Present claim 16 specifies that the claimed “optical module” comprises a “means for holding” and that the claimed “means for holding” comprises “a micro heater.” Thus, claim 16 specifies that the micro heater is a part of the optical module, not part of the separate alignment system. Accordingly, withdrawal of the rejection of claim 16 is respectfully solicited.

(3) Solder Cannot Be Construed To Be A Heat-Activated Adhesive

The Office Action also fails to establish a *prima facie* case for the obviousness of claim 16 at least because the claimed heat-activated adhesive cannot be construed to be solder. On page 2, the Office Action asserts that the solder is “a heat activated adhesive (step 1: heat solder; step 2: adhere two objects together).” The Office Action’s assertion that solder is an adhesive is respectfully traversed.

a. To shed light on this claim construction issue, it is helpful to review how the law instructs us to construe the claim term “heat-activated adhesive.”

Claim terms are to mean what they would mean to a person of ordinary skill in the art at the time of the invention. One must determine how such an ordinarily skilled person would understand the claim in the context of the particular technology and the description in the specification. The inquiry into claim meaning is directed to ascertaining “what one of ordinary skill in the art at the time of the invention would have understood the term to mean.”

Markman v. Westview Instrument, Inc., 52 F.3d 967, 986 (Fed. Cir. 1995); *Bell Ad. Network Servc., Inc. v. Covad Communications Group*, 262 F.3d 1258, 1267 (Fed. Cir. 2001).

The M.P.E.P. instructs that the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. M.P.E.P. §2111; see also *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999). “[T]he PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art....” *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed.Cir.1997). “It is axiomatic that, in proceedings before the PTO, claims in an application are to be given their broadest reasonable interpretation consistent with the specification, ... and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art” (emphasis added). *In re Bond*, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed.Cir.1990).

As to prior art references, prior art references may be “indicative of what all those skilled in the art generally believe a certain term means ... [and] can often help to demonstrate how a disputed term is used by those skilled in the art.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584, 39 USPQ2d 1573, 1578-79 (Fed.Cir.1996). However, the interpretation of claim terms by the Patent Office should not be so broad that it conflicts with the meaning given to identical terms in other patents from the art to which the claimed subject matter most nearly pertains. See *In re Cortright*, 165 F.3d at 1359.

As to dictionaries and treatises, *Texas Digital Systems v. Telegenix*, 308 F.3d 1193, 64 USPQ2d 1812 (Fed. Cir. Oct. 16, 2002) decided that dictionaries and treatises should be regarded as “unbiased reflections of common understanding not influenced by expert testimony or events subsequent to the fixing of the intrinsic recorded by the grant of the patent, not colored by the motives of the parties, and not inspired by litigation.” In short, the *Texas Digital* case relied on extrinsic evidence in the form of dictionaries since such definitions are unbiased. However, “a common meaning, such as one expressed in a relevant dictionary, that flies in the face of the patent disclosure is undeserving of fealty.” *Renishaw PLC v. Marposs Societa 'per Azioni*, 158 F.3d 1243, 1250, 48 USPQ2d 1117, 1122 (Fed. Cir. 1998).

After the U.S. Court Of Appeals For The Federal Circuit decided *Philips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*), and decided several following cases, the

law of claim construction placed new emphasis on interpreting claims in the context of the specification and with diminished reliance on dictionaries. Prior to the *Philips* case, the law of claim construction relied, at least in part, on dictionaries as instructed by the *Texas Digital* case. However, after the decision in the *Philips* case, and several cases following, the law of claim construction requires that claims be construed to have the meanings that they would have to persons of ordinary skill in the art with reference to the specification. After the decision in the *Philips* case, it is necessary to look at the disclosure of the specification to properly construe the claim term.

In particular, *Philips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*), emphasized that the proper judicial construction of a claim and its terms is from the viewpoint of a person of ordinary skill in the field of the invention. A court must determine how such a person would understand the claim in the context of the particular technology and the description in the specification, with due reference to the prosecution history. See also, *On Demand Machine Corp. v. Ingram Industries, Inc. et al.*, Slip Op. 05-1074, 1075, 1100, pages 7-8 (Fed. Cir., decided March 31, 2006) (“Thus the court in *Philips*, resolving conflict, stressed the dominance of the specification in understanding the scope and defining the limits of the terms used in the claim. 415 F.3d at 1313.” (emphasis added)). See also, *Dorel Juvenile Group v. Graco Children’s Products*, Slip Op. 05-1026, page 5 (Fed. Cir., decided November 7, 2005) (The court will “test the scope of claim language with primary reference to the specification, of which the claims are a part, *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315-17 (Fed. Cir. 2005) (*en banc*).” (emphasis added)). See also, *Biagro Western Sales v. Grow More*, Slip Op. 04-1414, pages 7-8 (Fed. Cir., decided September 13, 2005) (“As our recent *en banc* decision in *Phillips v. AWH Corp.* reaffirmed, the words of a claim are generally given their ordinary and customary meaning, which is the meaning the term would have to a person of ordinary skill in the art at the time of the invention. 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (*en banc*) (citing *Innova*, 381 F.3d at 1116). Such a person is deemed to read the claim term in the context of the entire patent, including the other claims and the written description. *Id.* at 1313.” (emphasis added)). See also, *Aquatex Industries v. Techniche Solutions*, Slip Op. 05-1088, page 9 (Fed. Cir., decided August 19, 2005) (“To ascertain the meaning of a disputed claim term “the words of a claim are generally given their ordinary and customary meaning,” as would be understood by “a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent

application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, (Fed. Cir. 2005) (*en banc*). The specification is of central importance in construing claims because “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* at *24.”).

b. Applying the law of claim construction to the present application reveals that solder is not a heat-activated adhesive.

In the present specification, solder and adhesives are discussed as alternative means for holding. See the specification in general, for example the 11th line on page 9, the 5th line on page 10, and the 7th and 8th lines on page 10. For a separate discussion of the solder embodiments, see the 11th through 27th lines on page 10. For a separate discussion of the adhesive embodiments, see the 28th through 32nd lines of page 10 and the 1st and 2nd lines of page 11. As originally filed, the application claimed the solder embodiment in claims 14 and 15 (now cancelled), and separately claimed an adhesive embodiment in claim 16.

The present application discloses solder and adhesive embodiments as distinct. However, the Office Action ignores this application disclosed distinction and asserts, without any support, that solder is an adhesive. This assertion is respectfully traversed, as it is contrary to the disclosure of the application and contrary to the claims prosecution. The Office Action’s claim construction of heat-activated adhesive is contrary to the law of claim construction. Accordingly, withdrawal of the rejection of claim 16 is respectfully solicited.

(4) The Applied Art Does Not Suggest Motivation To Modify Musk To Include A Heat-Activated Adhesive

The Office Action fails to establish a *prima facie* case for the obviousness of claim 16 at least because it fails to establish a suggestion or incentive to modify Musk to include a heat-activated adhesive.

The M.P.E.P. instructs that “examiners should apply the test for patentability under 35 U.S.C. §103 set forth in *Graham*.” See M.P.E.P. 2141 through 2143. Even if, *arguendo*, prior art references disclose all of the elements specified in a claimed invention, obviousness also requires that there exist some suggestion to motivate a person of ordinary skill to combine such elements or modify known elements in a way that achieves the claimed

invention. Establishment of a suggestion or incentive to modify or combine prior art references requires substantial evidence of such suggestion or incentive.

The Office Action asserts that “It would have been obvious to one of ordinary skill in the art to include this feature [solder] in Musk because the solder is reflowable (see entire document), allowing the device to be re-aligned multiple times with the device being held in alignment in a robust manner” (see page 4, lines 11-13).

As discussed above, solder is not the feature claimed. A heat-activated adhesive and a micro heater are the features claimed. Motivation to add non-claimed features (e.g., solder) cannot be regarded as motivation to add a claimed feature (e.g., adhesive). As discussed above heat-activated adhesive cannot be construed to mean solder. Furthermore, applied art fails to disclose any motivation to include a micro heater in the optical device. The Office Action fails to establish a *prima facie* case for the obviousness of claim 16 at least because it fails to establish a suggestion or incentive to modify Musk to include a heat-activated adhesive or to include a micro heater. Accordingly, withdrawal of the rejection of claim 16 is respectfully solicited.

B. The Office Action rejects claims 16, 18, 22 and 25-26 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,870,517 to Wayland in view of U.S. Patent Publication No. 2002/0071638 of Musk. Claims 18 and 22 are not now pending. The rejection of claims 16 and 25-26 is respectfully traversed.

(1) Neither Wayland Nor Musk Discloses A Micro Heater As Part Of The Optical Module

With respect to claims 16 and 25-26, Wayland in view of Musk does not disclose, teach or suggest that the claimed micro heater is part of the claimed optical module. See discussion above with respect to the rejection of claim 16 over Musk in view of Pham.

a. The Office Action does not even assert that Wayland in view of Musk discloses, teaches or suggests that the claimed micro heater is part of the claimed optical module. See discussion above with respect to the rejection of claim 16 over Musk in view of Pham.

b. The Office Action does not even assert a motivation, teaching or suggestion to modify Wayland to include the claimed micro heater as part of the claimed optical module.

C. Conclusion

In view of the present amendments and remarks, favorable reconsideration is courteously requested. If there are any remaining issues that can be expedited by a telephone conference, the Examiner is courteously invited to telephone counsel at the number indicated below.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 50-3718.

Respectfully submitted,



Daniel E. Fisher, Reg. No. 34,162
Attorney/Agent for Applicants

MILLEN, WHITE, ZELANO &
BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

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